

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (Currently Amended) An enciphering method comprising a step of formatting a clear message ~~in clear~~ (m) by means of a formatting function (μ), and a step of exponentiation of the result of the previous step using a public key (N, e) in accordance with the equation $c = \mu(m)^e \bmod N$, c being an enciphered message, $\mu(m)$ being the result of the formatting step, and e and N elements of the public key,

~~the method being characterised in that~~ wherein the formatting function (μ) is the PSS function.

2. (Currently Amended) A method according to claim 1, ~~characterised in that~~ wherein the formatting function μ is defined by

$$\mu(m) = \text{PSS}(m) = \omega || s, \text{ with:}$$

m, the clear text ~~in clear~~ of $k - k_0 - k_1$ bits, r a random parameter of k_0 bits, k, k_0 , k_1 being parameters of the formatting function,

$||$ a concatenation function

$$\omega = H(m || r)$$

$$s = G(\omega) \oplus (m \parallel r)$$

\otimes a logic function XOR, and

H, G two hashing functions

3. (Currently Amended) ~~Use of~~ A method of enciphering a message using a probabilistic signature function (~~PSS~~) defined according to the standard PKCS #2 v 2.1, RSA cryptography standard as a formatting function (μ), ~~in order to effect an enciphering method~~ comprising a step of formatting a clear message ~~in clear~~ (m) by means of the formatting function (μ), and a step of exponentiation of the result of the previous step by means of a public key (N, e) in accordance with the equation $c = \mu(m)^e \bmod N$, c being an enciphered message, $\mu(m)$ being the result of the formatting step, and E and N elements of the public key.

4. (Currently Amended) A cryptographic ~~system~~ method comprising:

- a step of formatting a clear message ~~in clear~~ (m) by the probabilistic signature function (~~PSS~~), and then:

- if an enciphering of the clear message ~~in clear~~ (m) is required, a step of exponentiation of the result of the formatting step by means of a first key (N, e) in accordance with the equation $c = \mu(m)^e \bmod N$, c being an enciphered message, $\mu(m)$ being the result of the formatting step, and e and N elements of the first key, or

- if a signature of the clear message ~~in clear~~ (m) is required, a step of exponentiation of the result of the formatting step by means of a second key (N', d') in accordance with the

equation $s = \mu(m)^{d'} \bmod N'$, s being a signed message, $\mu(m)$ being the result of the formatting step, and d' and N' elements of the second key.

5. (Currently Amended) A ~~system~~ method according to claim ~~[[3]]~~ 4, in which the first key and the second key are respectively a public key of a first pair of keys and a private key of a second pair of keys.

6. (Currently Amended) A ~~system~~ method according to claim ~~[[4]]~~ 5, in which the first pair of keys and the second pair of keys are identical.

7. (Currently Amended) A ~~system~~ method according to ~~one of claims 4 to 6,~~ claim 4, in which the enciphering is of the RSA type.

8. (Currently Amended) An electronic component comprising a programmed ~~means~~ processor for implementing an enciphering method according to ~~one of claims 1 to 2~~ claim 1, the programmed ~~means~~ processor comprising ~~in particular~~ a central unit and a program memory.

9. (Currently Amended) An electronic component comprising a programmed ~~means~~ processor for implementing a cryptographic ~~system~~ method according to ~~one of claims 4 to 7~~ claim 4, the programmed ~~means~~ processor comprising ~~in particular~~ a central unit and a program memory.

10. (Currently Amended) A chip card comprising an electronic component according to ~~claim 7 or~~ claim 8.

11. (New) A chip card comprising an electronic component according to claim 9.